

# HYUNDAI ROBOT SERIES



## ■ Robot Application



Car body line in China



Car body line in Czech



Arc welding robot



Inspection robot system






Press handling robot









Spot welding robot for train







# Hyundai Robot Series

Model					
			HA006	HA010L	HA020
Payload			6 kg	10 kg	20 kg
Max. Reach			1,394 mm	1,986 mm	1,765 mm
Degree of freedom			6 Axes	6 Axes	6 Axes
Installation			Floor / Wall / Ceiling	Floor / Wall / Ceiling	Floor / Wall / Ceiling
Max. Motion Range	S	Swivel	±180°	±180°	±180°
	H	For/Backward	+150° ~ -90°	+160° ~ -105°	+150° ~ -110°
	V	Up/Downward	+200° ~ -160°	+240° ~ -165°	+250° ~ -155°
	R2	Rotation 2	±180°	±180°	±180°
	B	Bending	±135°	±135°	±135°
	R1	Rotation 1	±360°	±360°	±360°
Max. Speed	S	Swivel	170°/s	170°/s	170°/s
	H	For/Backward	170°/s	165°/s	165°/s
	V	Up/Downward	170°/s	175°/s	175°/s
	R2	Rotation 2	335°/s	350°/s	335°/s
	B	Bending	335°/s	350°/s	335°/s
	R1	Rotation 1	500°/s	600°/s	600°/s
Allowable Moment	R2	Rotation 2	1.0 kgf.m	2.5 kgf.m	4 kgf.m
	B	Bending	1.0 kgf.m	2.5 kgf.m	4 kgf.m
	R1	Rotation 1	0.5 kgf.m	1.1 kgf.m	2 kgf.m
Repeatability			±0.05 mm	±0.06 mm	±0.06 mm
Ambient Temperature			0 ~ 45 °C (273 ~ 318 °K)	0 ~ 45 °C (273 ~ 318 °K)	0 ~ 45 °C (273 ~ 318 °K)
Approximate Weight			155 kg	245 kg	240 kg
Application	Arc Welding		●	●	●
	Spot Welding				
	Handling		●	●	●
	Sealing		●	●	●
	Others				






# High Speed

					
HR030L	HR050	HR050P	YS100	HH100SL	HH130L
30 kg	50 kg	50 kg	100 kg	100 kg	130 kg
2,431 mm	2,050 mm	2,041 mm	1,701 mm	3,507 mm	3,082 mm
6 Axes	6 Axes	3 Axes	6 Axes	6 Axes	6 Axes
Floor	Floor	Floor	Floor	Shelf	Floor
±180°	±180°	-	±180°	±180°	±180°
+150° ~ -77°	+150° ~ -80°	+150° ~ -77°	+250° ~ -90°	+160° ~ -35°	+80° ~ -65°
+134° ~ -135°	+140° ~ -135°	+134° ~ -135°	+10° ~ -265°	+235° ~ -135°	+265° ~ -135°
±360°	±360°	-	±360°	±360°	±360°
±127°	±127°	±127°	±130°	±125°	±125°
±360°	±360°	-	±360°	±360°	±360°
140°/s	150°/s	-	105°/s	105°/s	105°/s
150°/s	170°/s	130°/s	103°/s	85°/s	85°/s
150°/s	170°/s	170°/s	115°/s	95°/s	95°/s
210°/s	235°/s	-	150°/s	170°/s	170°/s
210°/s	235°/s	250°/s	150°/s	155°/s	155°/s
300°/s	300°/s	-	250°/s	270°/s	270°/s
12 kgf.m	18 kgf.m	-	75 kgf.m	105 kgf.m	105 kgf.m
12 kgf.m	18 kgf.m	18 kgf.m	75 kgf.m	105 kgf.m	105 kgf.m
6 kgf.m	9 kgf.m	9 kgf.m	40 kgf.m	50 kgf.m	50 kgf.m
±0.07 mm	±0.07 mm	±0.07 mm	±0.2 mm	±0.3 mm	±0.2 mm
0 ~ 45 °C (273 ~ 318 °K)	0 ~ 45 °C (273 ~ 318 °K)	0 ~ 45 °C (273 ~ 318 °K)	0 ~ 45 °C (273 ~ 318 °K)	0 ~ 45 °C (273 ~ 318 °K)	0 ~ 45 °C (273 ~ 318 °K)
670 kg	650 kg	600 kg	750 kg	1,450 kg	1,300 kg
			●	●	●
●	●	●	●	●	●
		Palletizing		Press Handling	Press Handling

# High Reliability

					
HP160	HS165D/165C	HS165	HS165S	HS200	HS200S
160 kg	165 kg	165 kg	165 kg	200 kg	200 kg
3,128 mm	1,355 mm / 866 mm	2,666 mm	3,090 mm	2,666 mm	3,090 mm
4 Axes	6 / 5 Axes	6 Axes	6 Axes	6 Axes	6 Axes
Floor	Floor	Floor	Shelf	Floor	Shelf
±180°	±180° / ±30°	±180°	±180°	±180°	±180°
+135° ~ -10°	+120° ~ -70° / +120° ~ -35°	+80° ~ -65°	+160° ~ -35°	+80° ~ -65°	+160° ~ -35°
+15° ~ -125°	+160° ~ -120° / -	+230° ~ -135°	+200° ~ -200°	+230° ~ -135°	+200° ~ -200°
-	±360°	±360°	±360°	±360°	±360°
-	±130°	±130°	±130°	±125°	±125°
±360°	±360°	±360°	±360°	±360°	±360°
120°/s	100°/s	105°/s	105°/s	95°/s	95°/s
130°/s	90°/s / 95°/s	105°/s	105°/s	95°/s	85°/s
130°/s	90°/s / -	105°/s	105°/s	95°/s	95°/s
-	150°/s	150°/s	150°/s	135°/s	135°/s
-	145°/s / 140°/s	145°/s	145°/s	120°/s	120°/s
300°/s	220°/s / 180°/s	220°/s	220°/s	190°/s	190°/s
-	100 kgf.m	105 kgf.m	105 kgf.m	136 kgf.m	136 kgf.m
-	100 kgf.m	105 kgf.m	105 kgf.m	136 kgf.m	136 kgf.m
50 kgf.m	50 kgf.m	50 kgf.m	50 kgf.m	72 kgf.m	72 kgf.m
±0.5 mm	±0.25 mm	±0.2 mm	±0.2 mm	±0.2 mm	±0.2 mm
0 ~ 45 °C (273 ~ 318 °K)	0 ~ 45 °C (273 ~ 318 °K)	0 ~ 45 °C (273 ~ 318 °K)	0 ~ 45 °C (273 ~ 318 °K)	0 ~ 45 °C (273 ~ 318 °K)	0 ~ 45 °C (273 ~ 318 °K)
1,400 kg	810 kg / 510 kg	1,250 kg	1,450 kg	1,270 kg	1,500 kg
	●	●	●	●	●
●	●	●	●	●	●
Palletizing					

# Wide Working Envelope

				
<b>HX200L</b>	<b>HX300</b>	<b>HX300L</b>	<b>HX400</b>	<b>HX400S</b>
200 kg	300 kg	300 kg	400 kg	400 kg
3,056 mm	2,573 mm	3,056 mm	2,573 mm	2,523 mm
6 Axes	6 Axes	6 Axes	6 Axes	6 Axes
Floor	Floor	Floor	Floor	Shelf
±180°	±180°	±180°	±180°	±160°
±75°	±75°	±75°	±75°	±65°
+30° ~ -125°	+30° ~ -125°	+30° ~ -125°	+30° ~ -125°	±35°
±360°	±360°	±360°	±360°	±360°
±120°	±120°	±120°	±120°	±120°
±360°	±360°	±360°	±360°	±360°
95°/s	95°/s	90°/s	95°/s	60°/s
95°/s	95°/s	90°/s	95°/s	60°/s
95°/s	95°/s	85°/s	95°/s	60°/s
120°/s	110°/s	110°/s	100°/s	100°/s
120°/s	110°/s	110°/s	100°/s	100°/s
180°/s	180°/s	155°/s	160°/s	160°/s
131.5 kgf.m	170 kgf.m	170 kgf.m	200 kgf.m	200 kgf.m
131.5 kgf.m	170 kgf.m	170 kgf.m	200 kgf.m	200 kgf.m
61.6 kgf.m	70 kgf.m	70 kgf.m	84 kgf.m	84 kgf.m
±0.3 mm	±0.3 mm	±0.3 mm	±0.3 mm	±0.5 mm
0 ~ 45 °C (273 ~ 318 °K)	0 ~ 45 °C (273 ~ 318 °K)	0 ~ 45 °C (273 ~ 318 °K)	0 ~ 45 °C (273 ~ 318 °K)	0 ~ 45 °C (273 ~ 318 °K)
2,265 kg	2,435 kg	2,685 kg	2,620 kg	2,800 kg
●				
●	●	●	●	●

## ■ Controller Specifications

Item	Specification	
<b>Model Name</b>	<b>Hi5</b>	
Control Hardware	Multi Processor System	
Execution Mode	Teaching & Playback	
Interpolation Type	Point-to-Point, Linear, Circular	
Max. Axes	Max. 16 Axes Simultaneously	
Number of Step	17,000 Points	
External Program Selection	Binary 255 / Discrete 8	
Position Detector	Serial Absolute Encoder	
Program Back-up	USB Memory	
Servo Control	Full Digital Servo	
Digital Input / Output	Max. Input : 256 / Output : 256 Points	
Analog Input / Output	Input : 4 ch / Output : 4 ch	
Conveyor Pulse Counter	Differential Input / Open Collector Input, 2 ch	
Communication	Ethernet	100 Base T (2 Ports)
	CAN	User 1 / User 2
	Serial	RS232C, RS422 (RS485)
	Field Bus	CC-Link, Profibus-DP, Devicenet, Modbus
Rated Supply Voltage	AC220V ± 10%, 50 / 60 Hz	
Max. Rated Power	8 kVA (Instant Max. 30 kVA)	
Cabinet Dimension (WxDxH)	650 mm x 600 mm x 1,100 mm (Except Caster)	
Weight	150 kg (Without Transformer)	
Protection Classification	IP54	
Ambient Temperature	0 ~ 45 °C	

## ■ Teaching Pendant Specifications

Item	Specification
Microprocessor	32 bits RISC Processor
Operating System	Windows CE
Display	7" Color TFT-LCD
Operation Mode	Menu Driven and Code Input / Touch Panel

### • Easy and simple operation

- Easy/convenient programming language similar to BASIC

### • Easy maintenance

- Excellent maintenance ability using on-line display function

### • Advanced control technology

- Dynamic control  
 - Advanced vibration suppression control  
 - Extended torque-velocity control

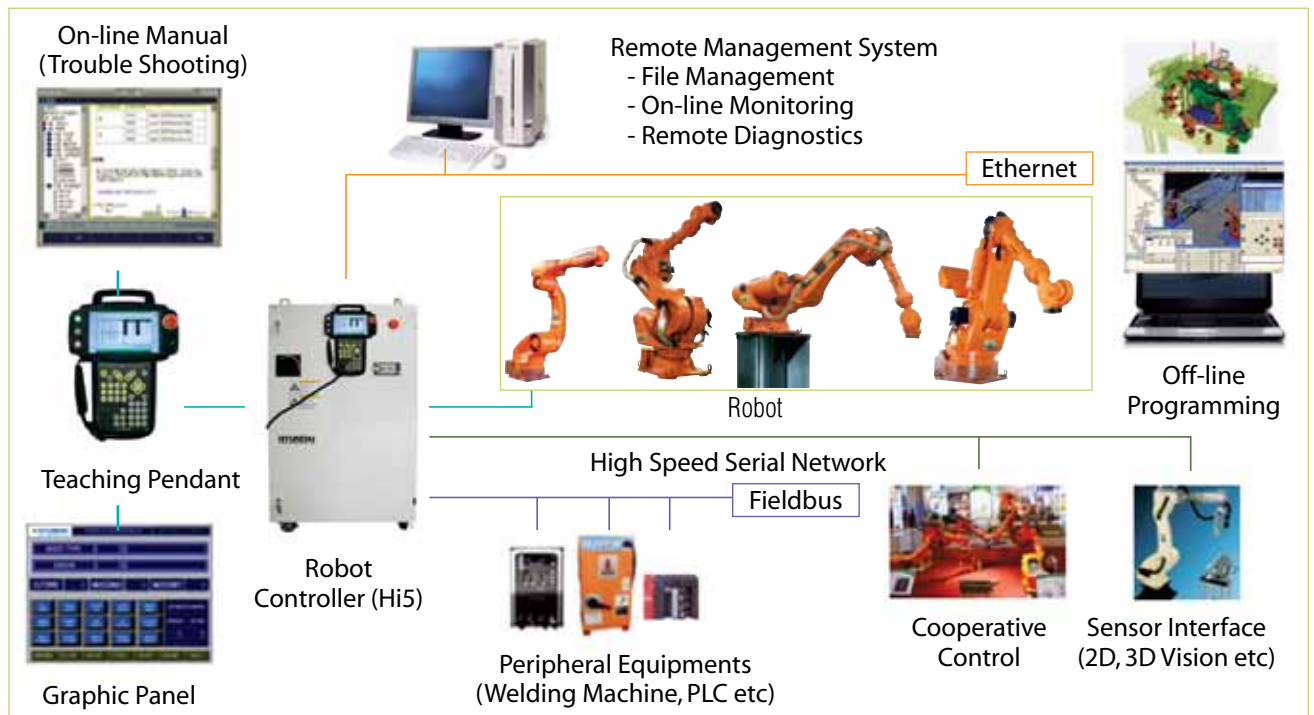
### • Safety

- Compliant with ANSI/RIA15.6\_1999 and CE Directives

### • Compatibility and connectivity

- Embedded soft PLC  
 - Fieldbus : CC-Link, Profibus-DP, Devicenet, Modbus, etc.  
 - Ethernet, Serial Communication

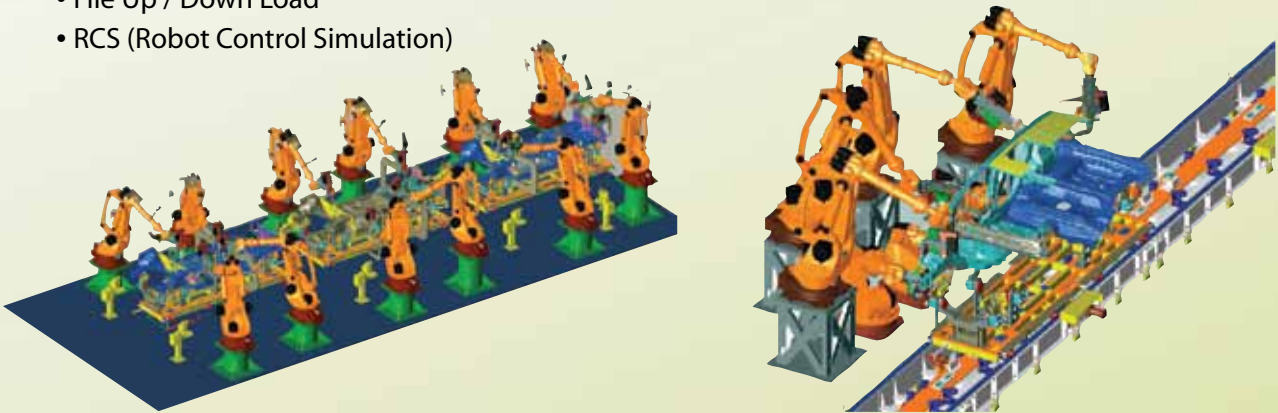
## ■ System Configuration



## Off-Line Programming

Simulate and create robot applications in your office

- ROBCAD Interface
- Teaching Pendant Interface
- File Up / Down Load
- RCS (Robot Control Simulation)



## Certificate (ISO 9001, ISO 14001, QS-9000TE, CE)



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\*Materials and specifications are subject to change without notice